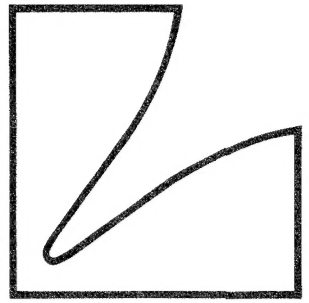
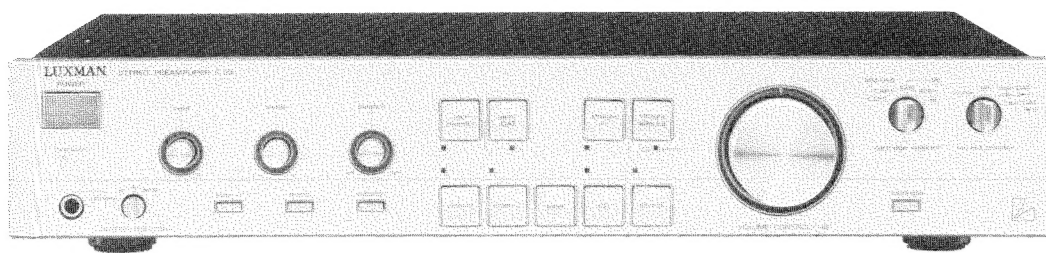


# SERVICE MANUAL



Stereo Preamplifier

## C-03



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## Contents

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Specifications .....	3
Parts Locations and Disassembly Instructions .....	4 to 5
Adjustment Procedures .....	6
Adjustment Locations .....	7
Block Diagram .....	8
Parts Layout on P. C. Boards and Wiring Diagram .....	9 to 14
Schematic Diagram .....	15 to 17
Electrical Parts List .....	18 to 22
Cabinet Assembly Parts List .....	23
Exploded View (Cabinet) .....	24 to 25
Packing Assembly Parts List .....	26
Packing Method View .....	26
Semi-Conductor Lead Identifications .....	27 to 29

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## Specifications

Output Voltage .....	1V
Input Sensitivity (at 1kHz) .....	CD : 150mV $\pm$ 15%
	Tuner : 150mV $\pm$ 15%
	Phono (MM) 47k ohm, Cap-1 : 2.5V $\pm$ 15%
	Phono (MM) 47k ohm, Cap-2 : 2.5V $\pm$ 15%
	Phono (MC) 3 ohm : 0.1mV $\pm$ 15%
	Phono (MC) 40 ohm : 0.22mV $\pm$ 15%
	Phono (MC) 100 ohm : 0.22mV $\pm$ 15%
	Monitor-1, 2 (Tape/DAT) : 150mV $\pm$ 15%
	Video-1, 2 : 150mV $\pm$ 15%
Input Impedance (at 1kHz) .....	CD : 32k ohm $\pm$ 20%
	Tuner : 32k ohm $\pm$ 20%
	Phono (MM) 47k ohm, Cap-1 : 47k ohm $\pm$ 20%
	Phono (MM) 47k ohm, Cap-2 : 47k ohm $\pm$ 20%
	Phono (MC) 3 ohm : 120 ohm $\pm$ 20%
	Phono (MC) 40 ohm : 40 ohm $\pm$ 20%
	Phono (MC) 100 ohm : 100 ohm $\pm$ 20%
	Monitor-1, 2 (Tape/DAT) : 32k ohm $\pm$ 20%
	Video-1, 2 : 32k ohm $\pm$ 20%
Total Harmonic Distortion (at 1kHz) .....	CD, Tuner (Pre-Out : 2V) : 0.01%
	Phono (MM) (Rec-Out : 5V) : 0.01%
	Video-1, 2 (Pre-Out : 2V) : 0.01%
Frequency Response .....	CD, Tuner 20~100kHz : $\pm$ 1.5dB
	Phono (MM) (Rec-Out 1V) 100Hz : $\pm$ 0.5dB
	10kHz : $\pm$ 0.5dB
	Video-1, 2 20~100kHz $\pm$ 0.5dB
	Tape Monitor-1, 2 (DAT/Monitor-1, 2) 20~100kHz : $\pm$ 1.5dB
	Video, Monitor-1, 2 20~100kHz : $\pm$ 1.5dB
Tone Control .....	Bass (100Hz) : $\pm$ 6 $\pm$ 1.5dB
	Treble (10kHz) : $\pm$ 6 $\pm$ 1.5dB
Loudness (VR-30dB) .....	100Hz : +6 $\pm$ 1.5dB
	10kHz : +4 $\pm$ 1.5dB
S/N Ratio (Input Terminal Shorted)) .....	CD, Tuner, Video-1,2 : 77.8dB
	Phono (MM) Cap-1 : 43.8dB
	Phono (MC) 3 ohm : 43.8dB
	Phono (MC) 40 ohm : 43.8dB
	Phono (MC) 100 ohm : 43.8dB
	Monitor-1, 2 (DAT-1, 2) : 77.8dB
Residual Noise .....	Volume, minimum : 88.2dB
Cross Talk (Pre-Out 5V=0dB, Input Terminal Shorted at 1kHz) .....	CD : -70dB
	Tuner : -70dB
	Video-1, 2 : -70dB
	Phono (MM) : -70dB
	Monitor-1, 2 : -70dB
Power Supply .....	120V, 60Hz (UQ Model only)
	100/120/220/240V, 50Hz (AD Model only)
Semiconductors .....	6 IC's, 61 Transistors, 8 FETs,
	18 Diodes, 11 Zener Diodes
Dimensions .....	438 (W) $\times$ 328 (D) $\times$ 88 (H) mm
Weight .....	5.5kg

**NOTE :** Due to continuing product improvement, specifications and design are subject to change without notice.

## Parts Locations and Disassembly Instructions

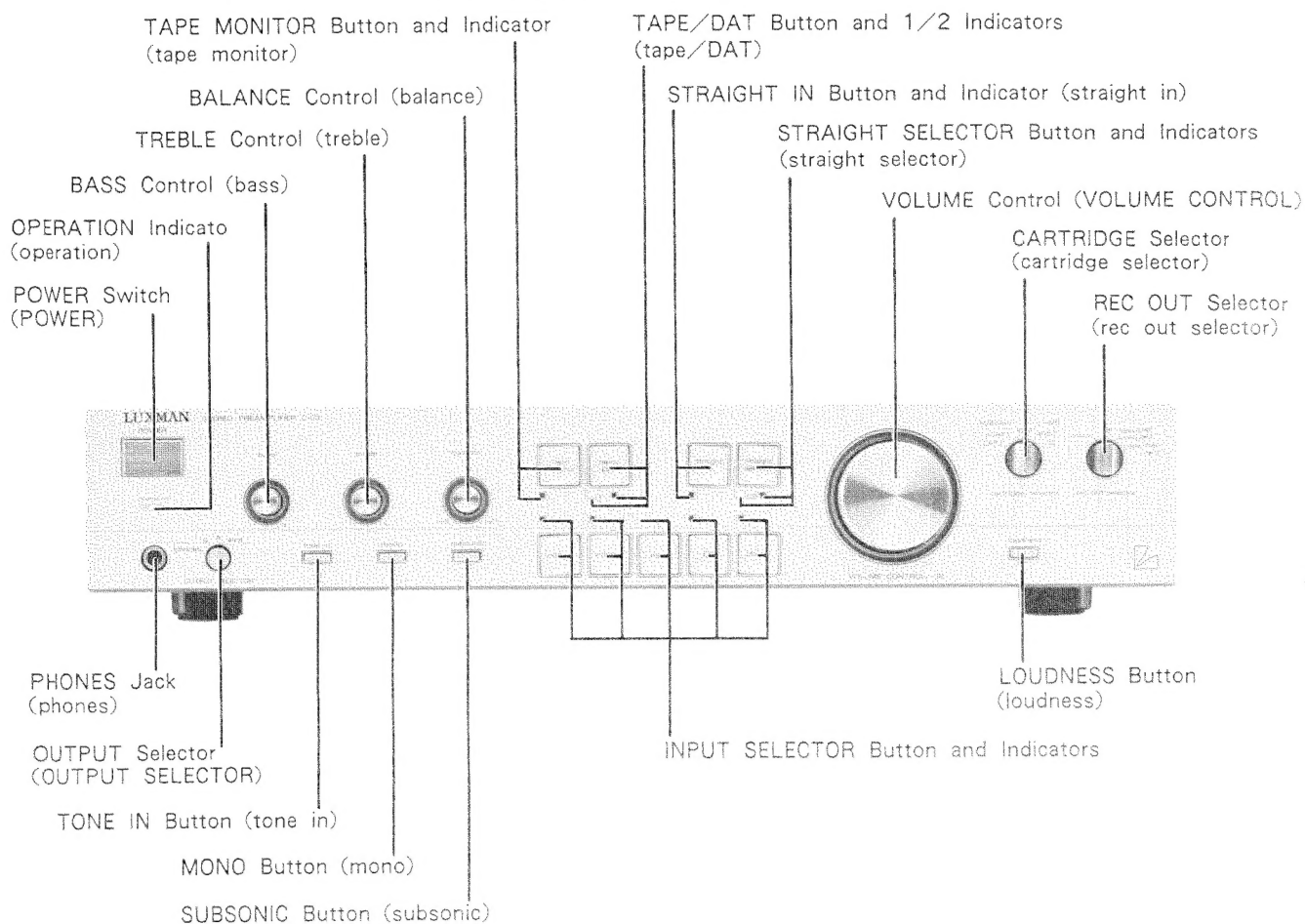


Figure 1

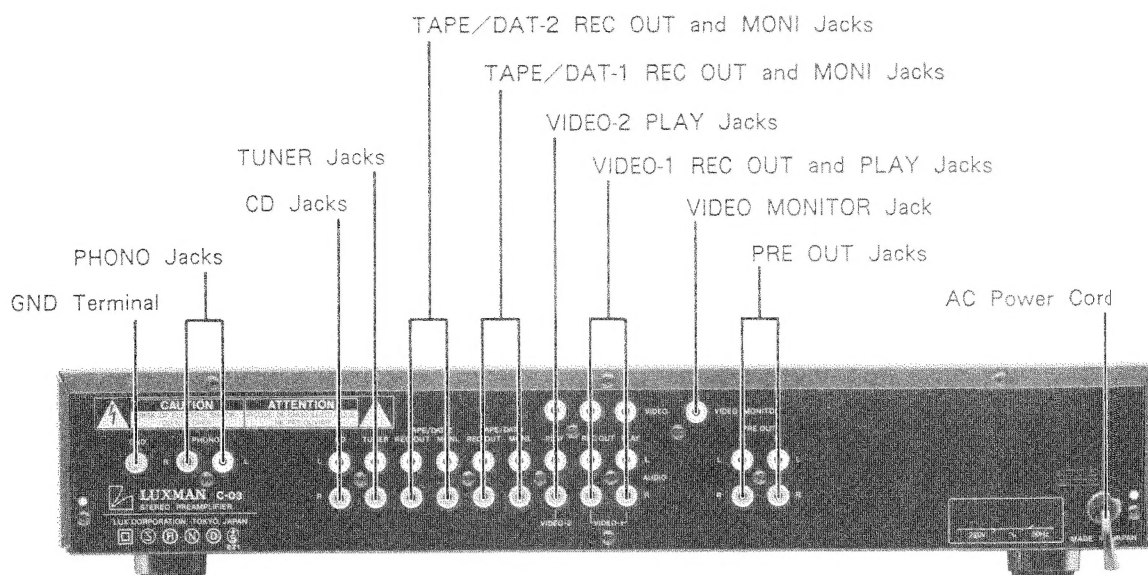


Figure 2



### 1. Removal of Main P. C. Board

- (1) After removal of the top cover and front panel, remove ten screws marked "O" as shown in Figure 3 and 4.

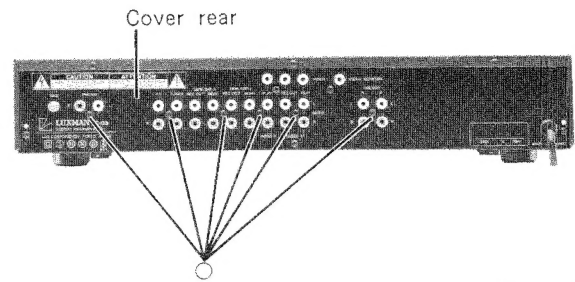
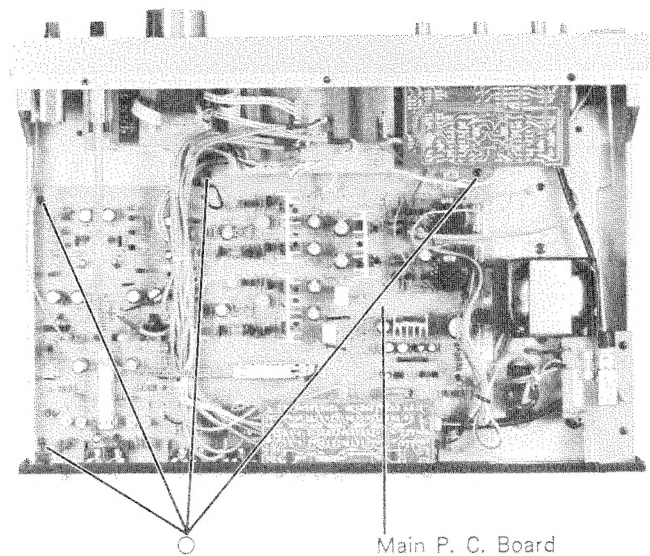


Figure 3

- (2) Remove three control knobs, (output selector/cartridge selector/rec out selector) as shown in Figure 5.



Main P. C. Board

Figure 4

- (3) Remove three nuts as shown in Figure 5.

- (4) Disconnect all wires from the Main P. C. Board.

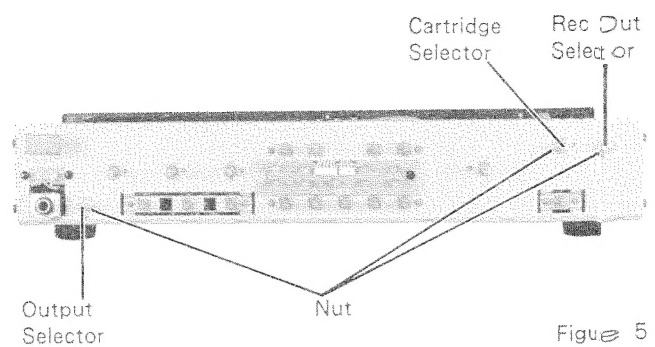
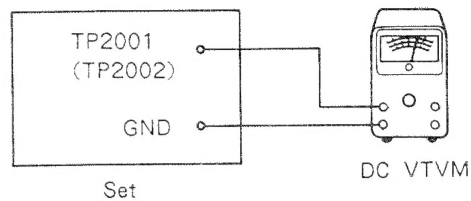


Figure 5

## Adjustment Procedures

### 1. Connection



### 2. Control Settings

Treble, Bass, Balance Control Knobs  
 ..... Center Position  
 Volume Control Knob ..... Maximum  
 Input Selector ..... PHONO

Cartridge Selector Switch ..... MM  
 Others ..... OFF

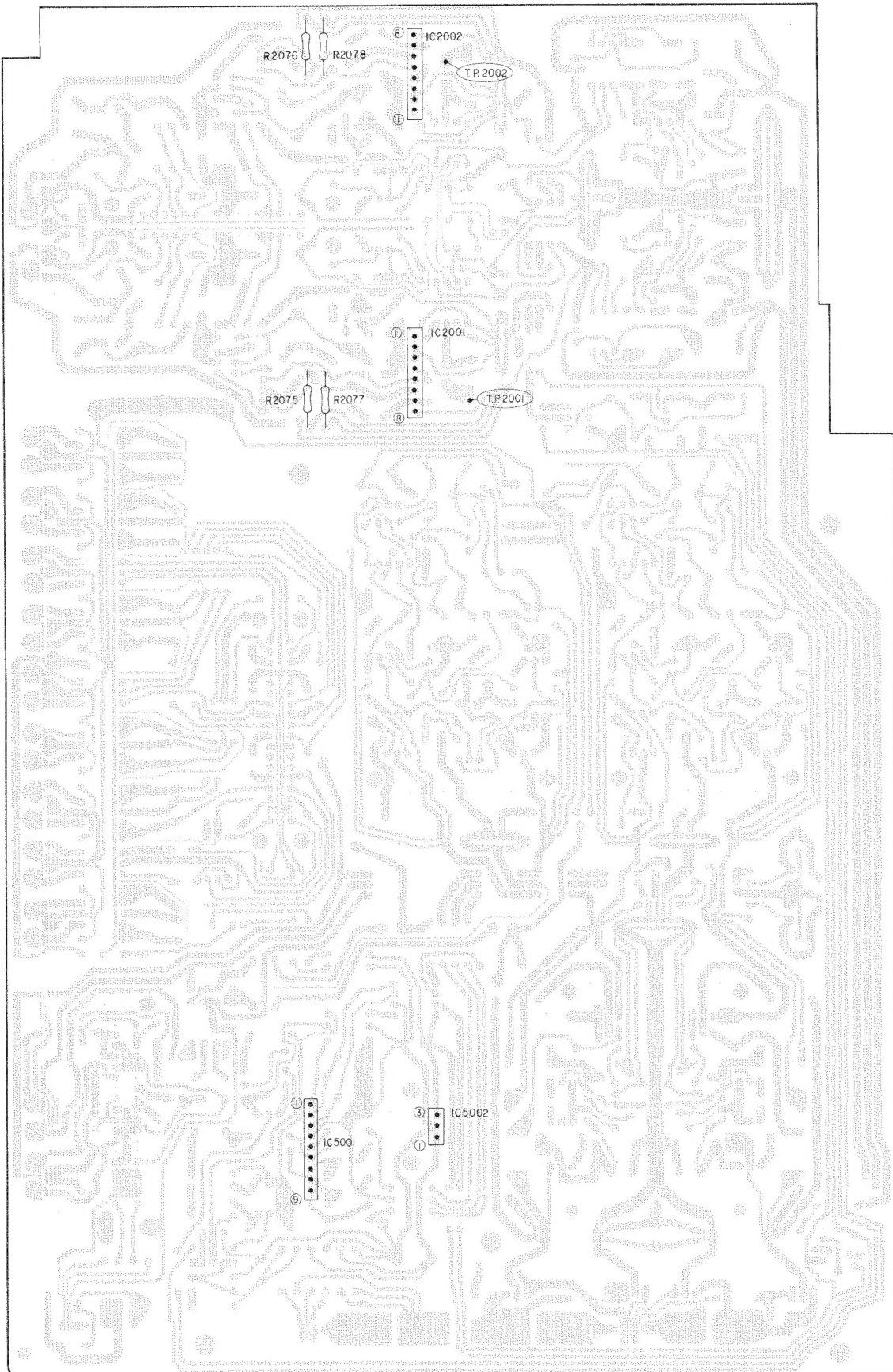
### 3. Adjustment Procedures

#### ● PHONO Amp. DC Offset Adjustment

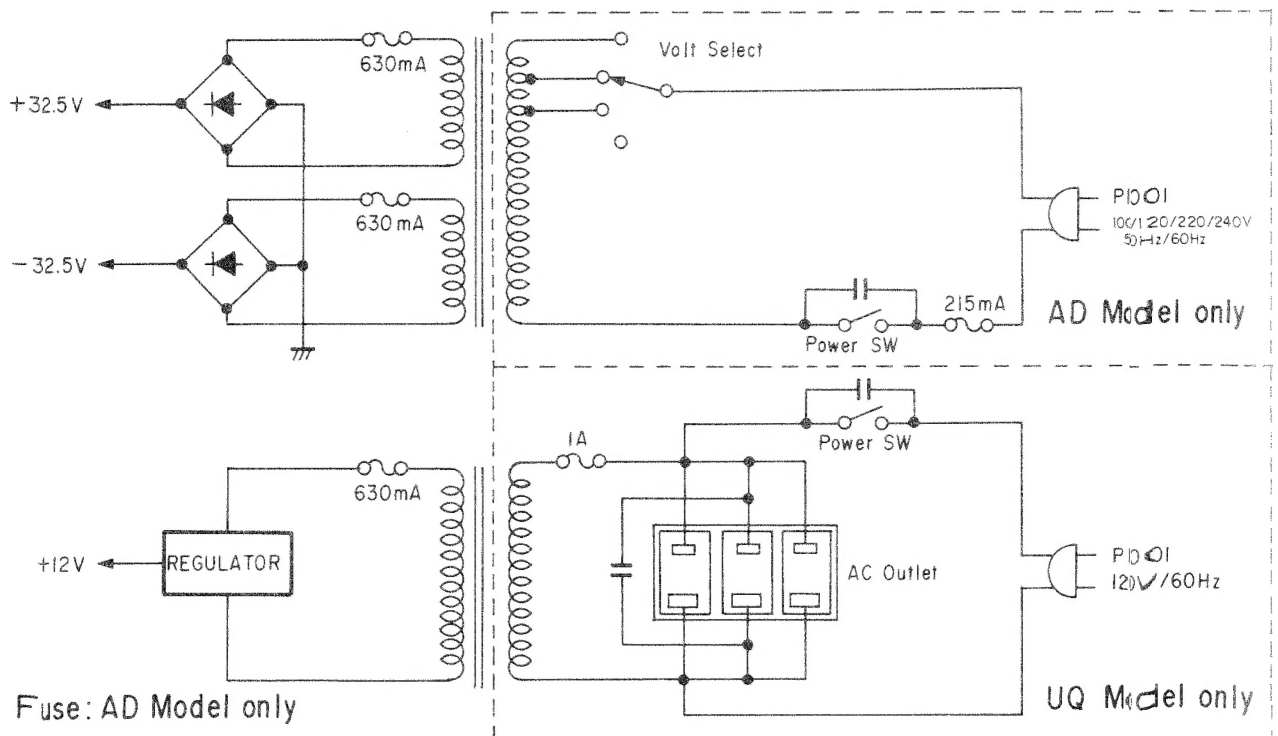
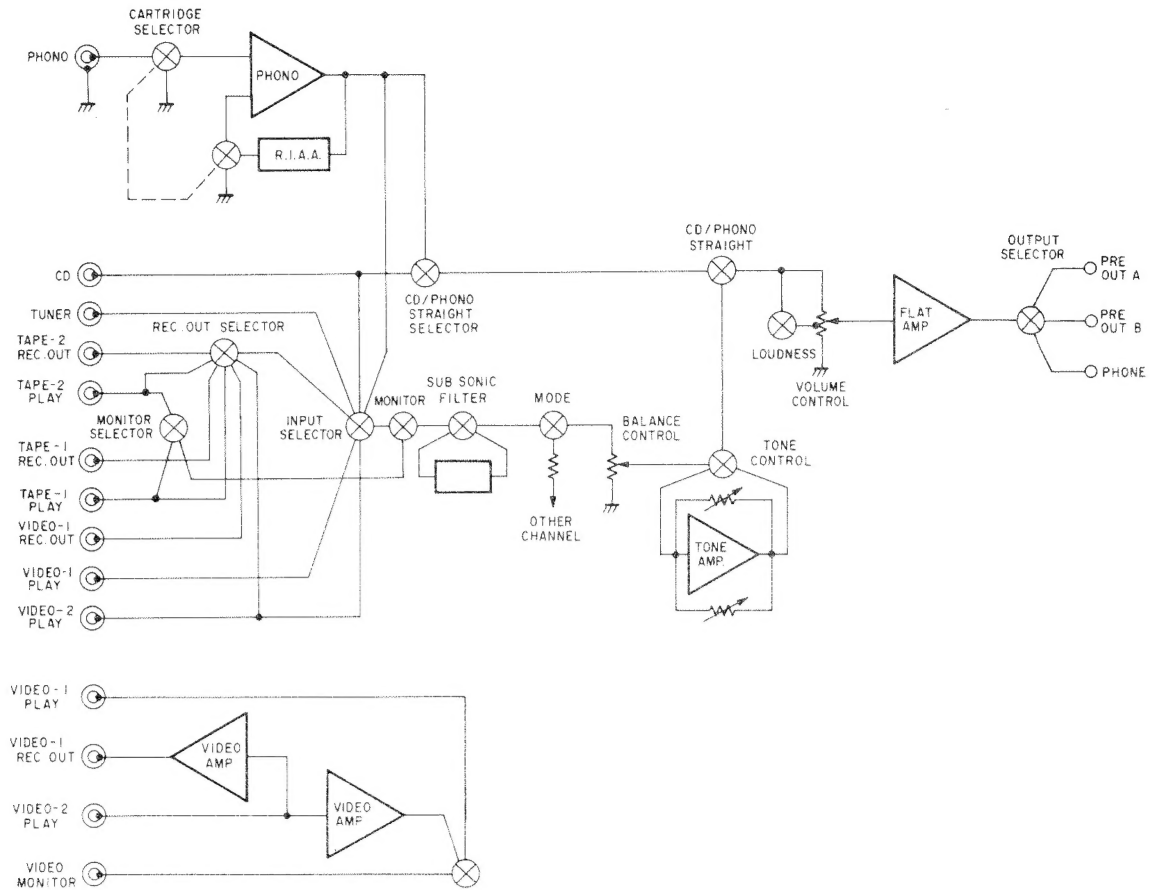
Confirm that the voltage (DC Offset Voltage) is  $0 \pm 10\text{mV}$  at TP2001 (TP2002).

1. The voltage shows more than  $10\text{mV}$  ( $> +10\text{mV}$ )  
 ..... Remove R2077 (R2078)
2. The voltage shows less than  $-10\text{mV}$  ( $< -10\text{mV}$ )  
 ..... Remove R2075 (R2076)

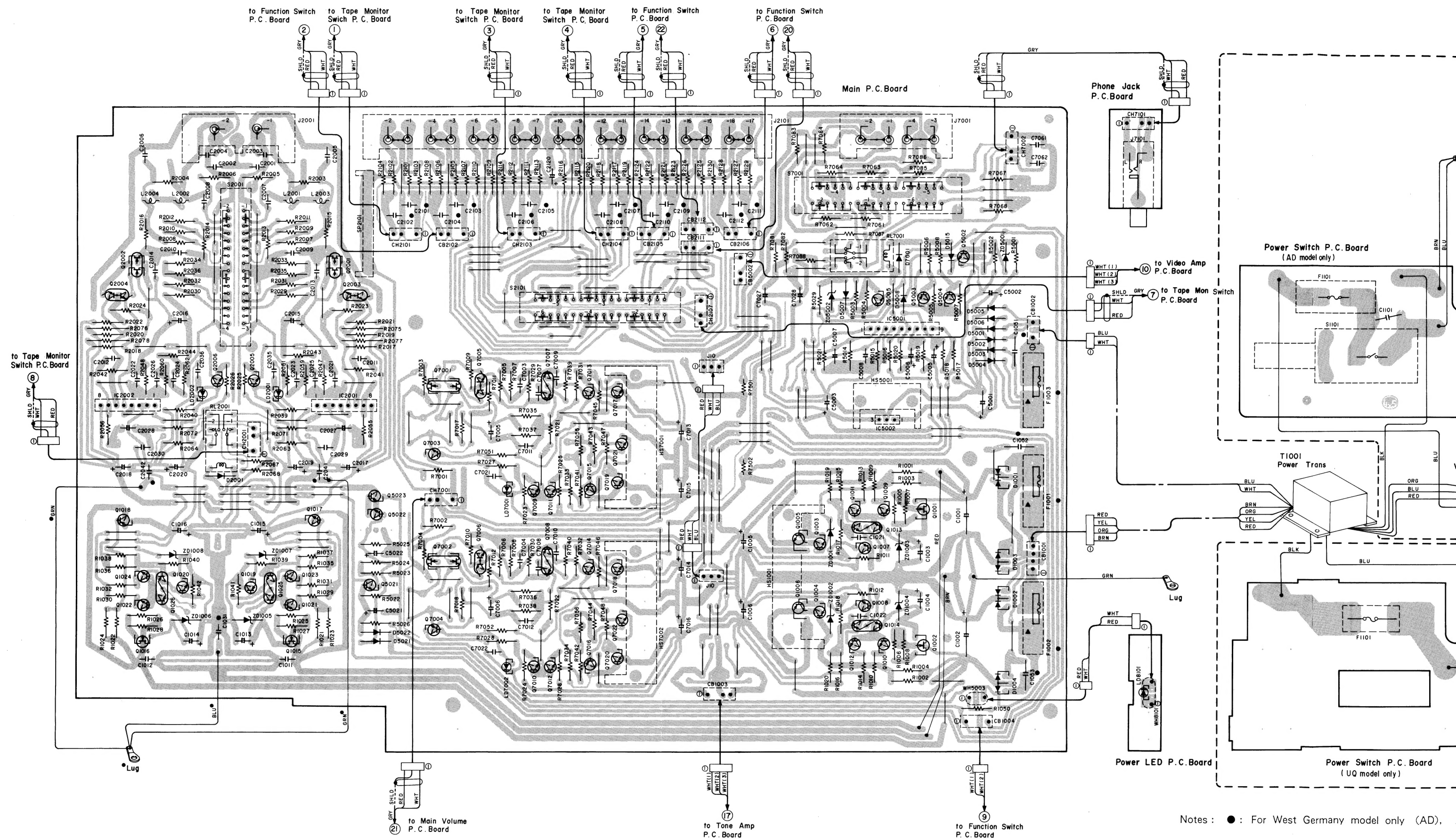
## Adjustment Locations



## Block Diagram



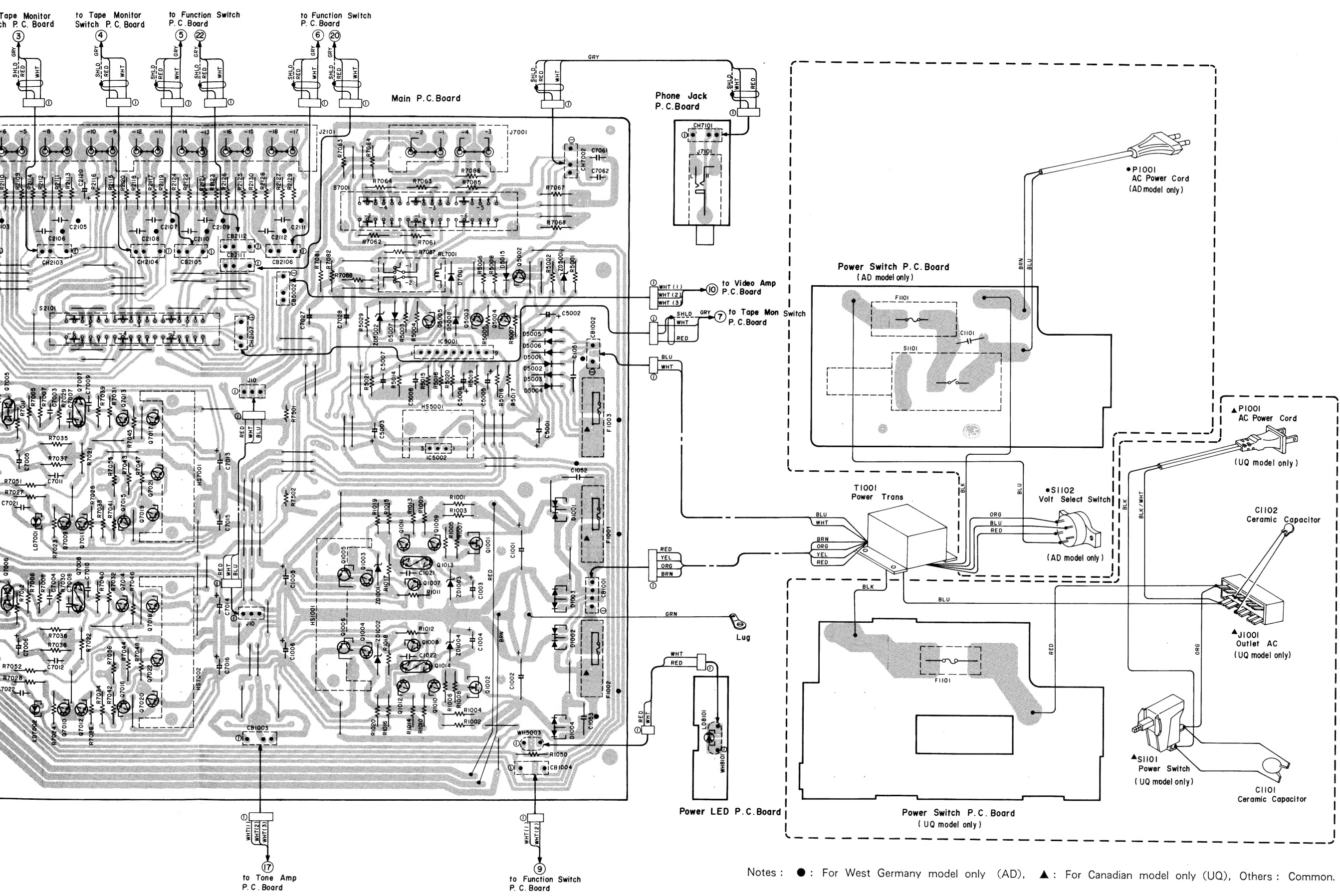
## Parts Layout on P.C. Boards and Wiring Diagram (1/2)



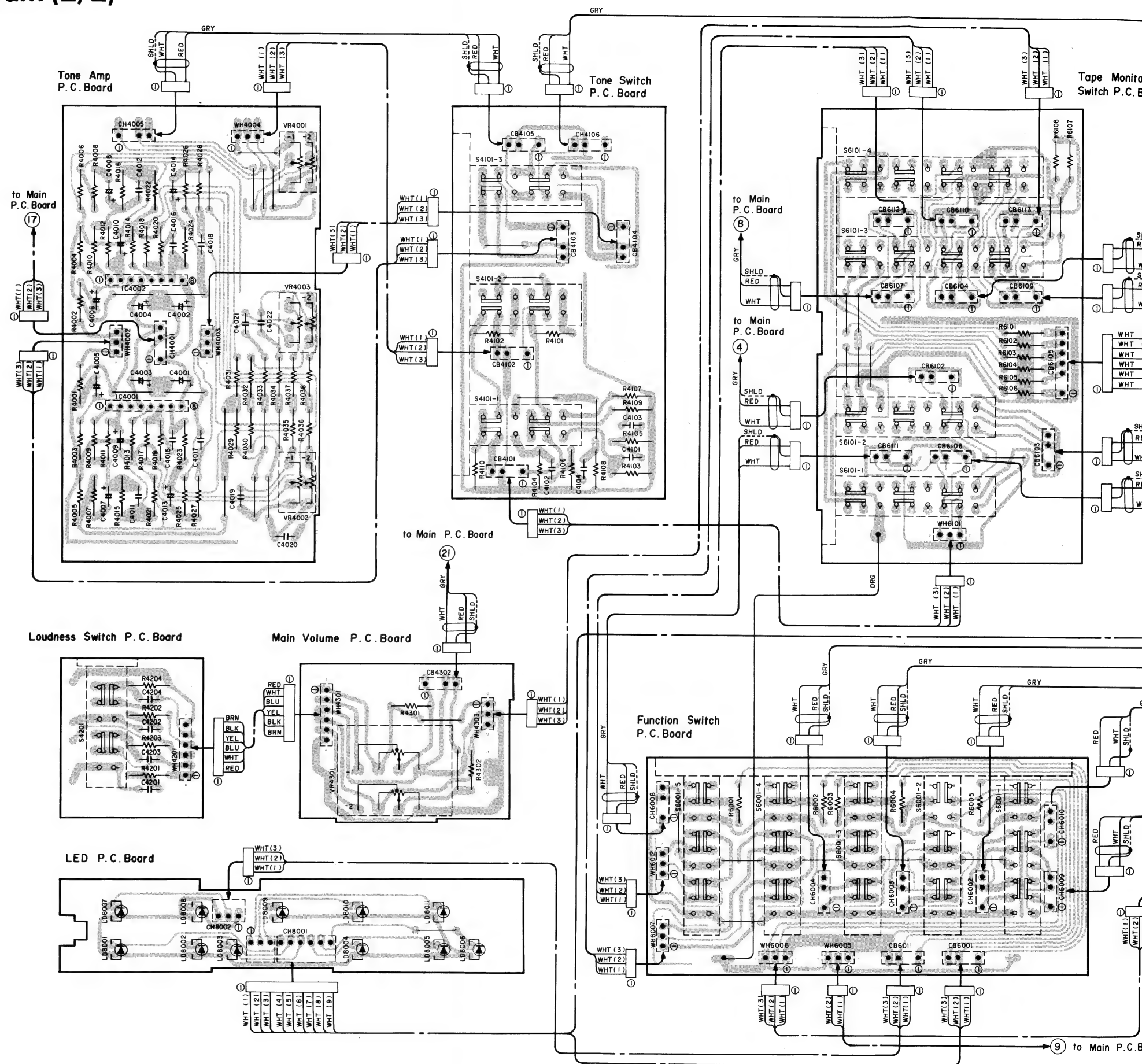
Notes : ● : For West Germany model only (AD),



Diagram (1/2)



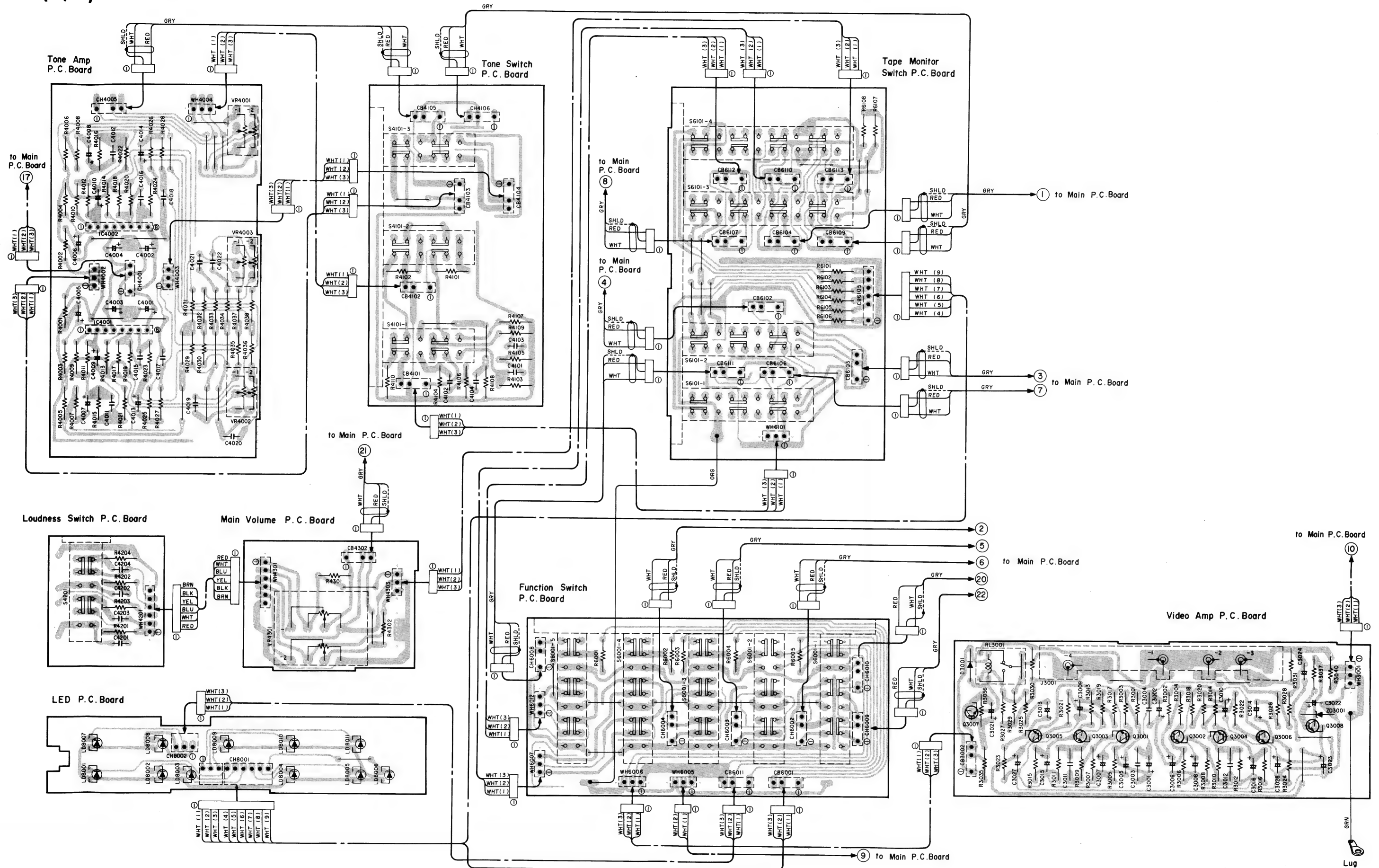
## Parts Layout on P.C. Boards and Wiring Diagram (2/2)



BLU	Blue
GRN	Green
BLK	Black
GRY	Gray
WHT	White
RED	Red
BRN	Brown
ORG	Orange
YEL	Yellow
VIO	Violet
PNK	Pink
GRN/WHT	Green/White
GRY/WHT	Gray/White
GRY/YEL	Gray/Yellow
GRN/YEL	Green/Yellow
SHLD	Shield



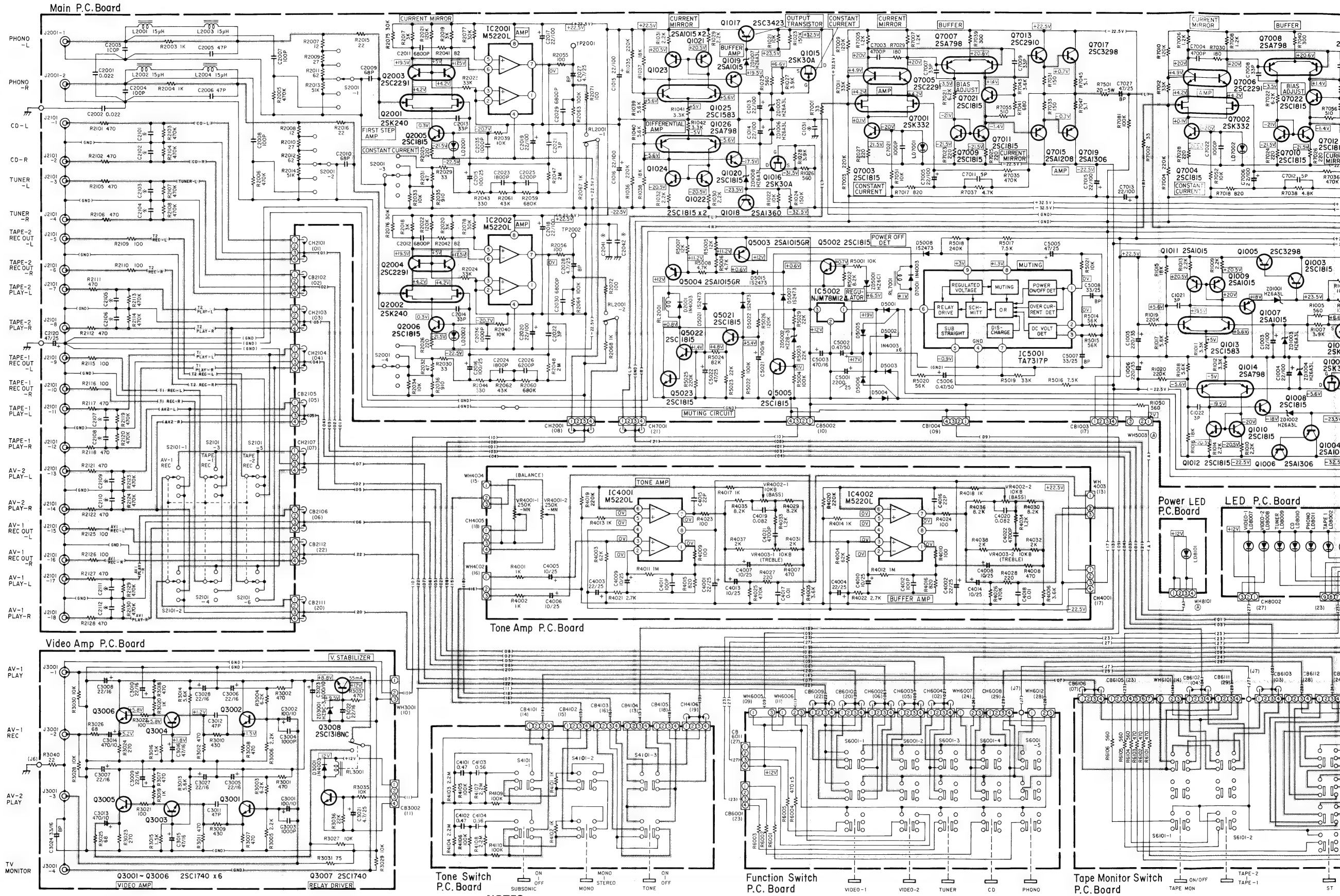
### Diagram (2/2)





## Schematic Diagram

IC	IC2001 IC2002														IC4001		IC5002		IC4002		IC5001			
Transister (Q)	Q3003~ Q3006		Q3001, Q3002		Q3007, Q3008		Q2001~ Q2006		Q1019 ~ Q1026 Q5003 ~ Q5005		Q1015 ~ Q1018 Q5021 ~ Q5023		Q5002		Q7001, Q7003 Q7005		Q7007, Q7021 Q7009, Q7011		Q7013, Q7017 Q7015, Q7019		Q7002, Q7006 Q7004, Q1007 ~ Q1014		Q7008, Q7010, Q7012, Q7022 Q1001 ~ Q1006	



**NOTES:**

1. All resistance values are in ohms. K = 1,000

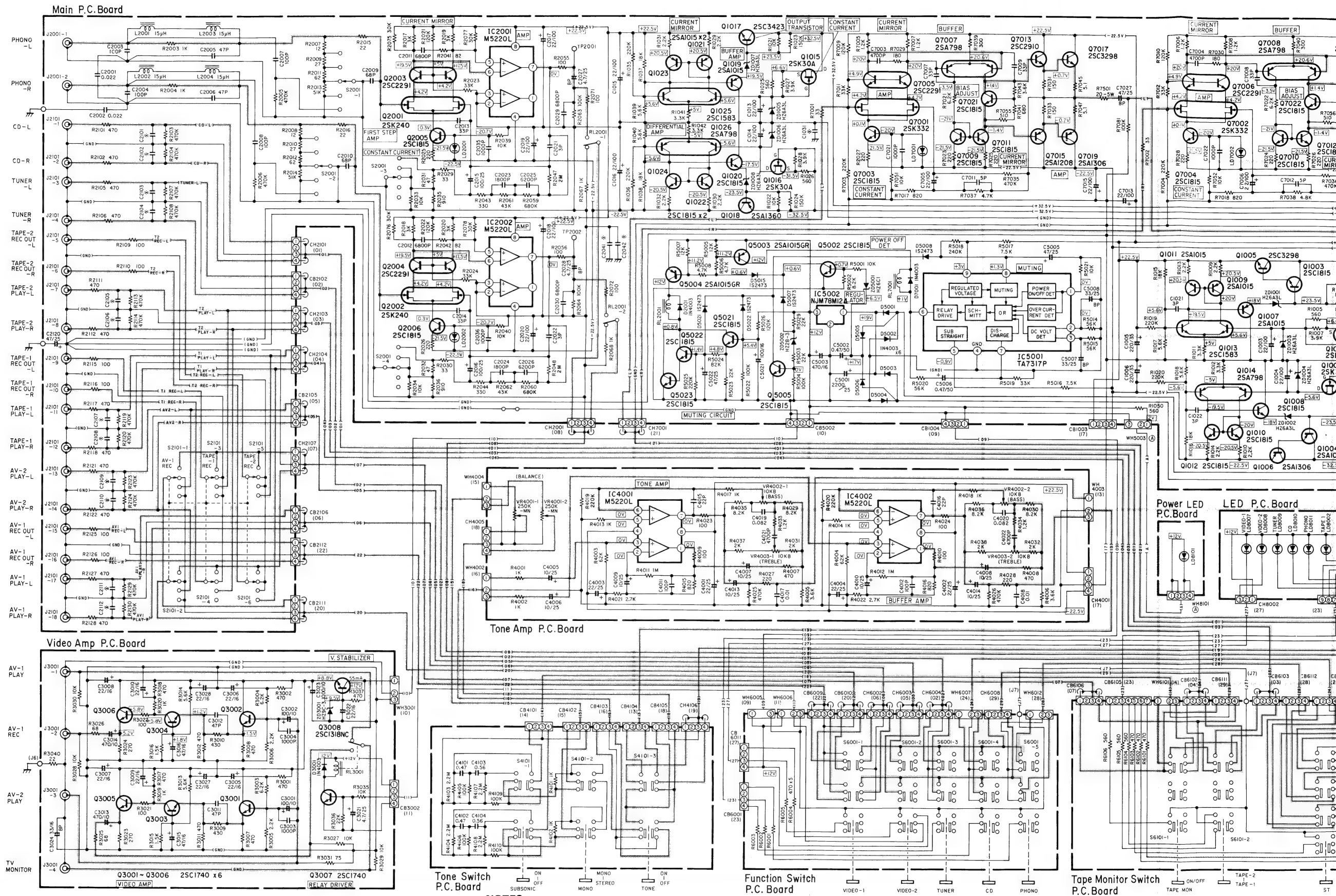
2. All capacitance values are in microfarads.  $P = \frac{1}{1\,000\,000}$





## Schematic Diagram

IC	IC2001 IC2002				IC4001		IC5002	IC4002	IC5001			
Transister (Q)	Q3003 ~ Q3006	Q3001, Q3002	Q3007, Q3008	Q2001 ~ Q2006	Q1019 ~ Q1026 Q5003 ~ Q5005	Q1015 ~ Q1018 Q5021 ~ Q5023	Q5002	Q7001, Q7003 Q7005	Q7007, Q7021 Q7009, Q7011	Q7013, Q7017 Q7015, Q7019	Q7002, Q7006 Q7004, Q7007 ~ Q1014	Q7008, Q7010, Q7012, Q7022 Q1001 ~ Q1006



**NOTES:**

1. All resistance values are in ohms.  $K = 1,000$



# Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.  
uF = microfarads, pF = picofarads

Abbreviations					Symbol No.	Part No.	Description		
RES.=Resistor					Q1026	48T43816F02	2SA798		
C.F.=Carbon Film					Q2001	48T60558F01	FET, 2SK240		
M.F.=Metal Film					Q2002	48T60558F01	FET, 2SK240		
M.O.=Metal Oxide Film					Q2003	48T72598F01	2SC2291		
M.P.=Metal Plate					Q2004	48T72598F01	2SC2291		
TR.=Transistor					Q2005	48T81101F01	2SC1815		
TRANS.=Transformer					Q2006	48T81101F01	2SC1815		
CP.=Chip					Q5002	48T81101F01	2SC1815		
CAP.=Capacitor					Q5003	48T51118F02	2SA1015		
ELY.=Electrolytic					Q5004	48T51118F02	2SA1015		
CER.=Ceramic					Q5005	48T81101F01	2SC1815		
MYL.=Mylar					Q5021	48T81101F01	2SC1815		
TAN.=Tantalum					Q5022	48T81101F01	2SC1815		
POLY.=Polystyrol					Q5023	48T81101F01	2SC1815		
PP.=Polypropylene					Q7001	48T72887F01	FET, 2SK332		
PLT.=Polyethylene					Q7002	48T72887F01	FET, 2SK332		
Symbol No.	Part No.	Description			Q7003	48T81101F01	2SC1815		
Main P. C. Board					Q7004	48T81101F01	2SC1815		
IC's					Q7005	48T72598F01	2SC2291		
IC2001	51T72167F01	M5220L			Q7006	48T72598F01	2SC2291		
IC2002	51T72167F01	M5220L			Q7007	48T43816F02	2SA798		
IC5001	51T67437F01	TA7317P			Q7008	48T43816F02	2SA798		
IC5002	51T72375F01	NJM78M12A			Q7009	48T81101F01	2SC1815		
Transistors					Q7010	48T81101F01	2SC1815		
Q1001	48T52152F01	FET, 2SK30A			Q7011	48T81101F01	2SC1815		
Q1002	48T52152F01	FET, 2SK30A			Q7012	48T81101F01	2SC1815		
Q1003	48T81101F01	2SC1815			Q7013	48T72889F01	2SC2910		
Q1004	48T81102F01	2SA1015			Q7014	48T72889F01	2SC2910		
Q1005	48T60555F01	2SC3298			Q7015	48T72888F01	2SA1208		
Q1006	48T60556F01	2SA1306			Q7016	48T72888F01	2SA1208		
Q1007	48T81102F01	2SA1015			Q7017	48T60555F01	2SC3298		
Q1008	48T81101F01	2SC1815			Q7018	48T60555F01	2SC3298		
Q1009	48T81102F01	2SA1015			Q7019	48T60556F01	2SA1306		
Q1010	48T81101F01	2SC1815			Q7020	48T60556F01	2SA1306		
Q1011	48T81102F01	2SA1015			Q7021	48S43525F03	2SC1815		
Q1012	48T81101F01	2SC1815			Q7022	48S43525F03	2SC1815		
Q1013	48T44982P01	2SC1583G			Diodes/LED's				
Q1014	48T43816F02	2SA798			D1001	48T80317F01	Twin D5KC20H		
Q1015	48T52152F01	FET, 2SK30A			D1002	48T80317F01	Twin D5KC20H		
Q1016	48T52152F01	FET, 2SK30A			D1003	48T80317F02	Twin D5KC20RH		
Q1017	48T64376F01	2SC3423			D1004	48T80317F02	Twin D5KC20RH		
Q1018	48T64375F01	2SA1360			D2001	48S40477U01	IN4003		
Q1019	48T81102F01	2SA1015							
Q1020	48T81101F01	2SC1815							
Q1021	48T81102F01	2SA1015							
Q1022	48T81101F01	2SC1815							
Q1023	48T81102F01	2SA1015							
Q1024	48T81101F01	2SC1815							
Q1025	48T44982P01	2SC1583G							



Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
D5001	48S40477U01	IN4003			Switches				
D5002	48S40477U01	IN4003			S2001	40T90662F02	Rotary SLD SSSR (CARTRIDGE SELECTOR)		
D5003	48S40477U01	IN4003			S2101	40T90663F01	Rotary SLD SSSR (REC OUT SELECTOR)		
D5004	48S40477U01	IN4003			S7001	40T90663F01	Rotary SLD SSSR (OUTPUT SELECTOR)		
D5005	48S40477U01	IN4003			Jacks				
D5006	48S40477U01	IN4003			J2001	09T90669F01	Phono, Plate (AU) (2P)		
D5007	48T68764F03	1S2473			J2101	09T90670F01	Phono, Plate (AU) (18P)		
or	48T43189F01	1S1555			J7001	09T90672F02	Phono, Plate (AU) (4P)		
D5008	48T68764F03	1S2473			Capacitors				
or	48T43189F01	1S1555			C1001	23T00142L22	ELY., 3300 $\mu$ F/50V		
D5015	48T68764F03	1S2473			C1002	23T00142L22	ELY., 3300 $\mu$ F/50V		
or	48T43189F01	1S1555			C1003	23T00154L53	ELY., 22 $\mu$ F/100V		
D5021	48T68764F03	1S2473			C1004	23T00154L53	ELY., 22 $\mu$ F/100V		
or	48T43189F01	1S1555			C1005	23T00154L27	ELY., 220 $\mu$ F/35V		
D5022	48T68764F03	1S2473			C1006	23T00154L27	ELY., 220 $\mu$ F/35V		
or	48T43189F01	1S1555			C1011	08T57705F25	MYL., 0.047 $\mu$ F		
D7001	48S40477U01	IN4003			C1012	08T57705F25	MYL., 0.047 $\mu$ F		
LD2001	48T52953F03	LED, BR5507S (RED)			C1013	23T00154L53	ELY., 22 $\mu$ F/100V		
LD2002	48T52953F03	LED, BR5507S (RED)			C1014	23T00154L53	ELY., 22 $\mu$ F/100V		
LD7001	48T52953F03	LED, BR5507S (RED)			C1015	23T00154L53	ELY., 22 $\mu$ F/100V		
LD7002	48T52953F03	LED, BR5507S (RED)			C1016	23T00154L53	ELY., 22 $\mu$ F/100V		
ZD1001	48T52741F03	Zener, HZ6A-3L			C1021	08T81196F03	MIC., 3pF		
ZD1002	48T52741F03	Zener, HZ6A-3L			C1022	08T81196F03	MIC., 3pF		
ZD1003	48T52741F03	Zener, HZ6A-3L			● C1031	08T52714F17	CER., 0.022 $\mu$ F		
ZD1004	48T52741F03	Zener, HZ6A-3L			● C1051	21T68834F01	CER., 0.01 $\mu$ F		
ZD1005	48T52741F03	Zener, HZ6A-3L			● C1052	21T68834F01	CER., 0.01 $\mu$ F		
ZD1006	48T52741F03	Zener, HZ6A-3L			● C1053	21T68834F01	CER., 0.01 $\mu$ F		
ZD1007	48T52741F03	Zener, HZ6A-3L			C2001	08T52714F17	CER., 0.022 $\mu$ F		
ZD1008	48T52741F03	Zener, HZ6A-3L			C2002	08T52714F17	CER., 0.022 $\mu$ F		
ZD5001	48T52739F40	Zener, HZ6C-1			C2003	08T61642F27	MIC., 100pF		
ZD5002	48T52739F03	Zener, HZ2B-3			C2004	08T61642F27	MIC., 100pF		
Coils					C2005	08T81196F25	MIC., 47pF		
L2001	24T63929F17	Choke, 15 $\mu$ H			C2006	08T81196F25	MIC., 47pF		
L2002	24T63929F17	Choke, 15 $\mu$ H			C2007	08T81196F34	MIC., 100pF		
L2003	24T63929F17	Choke, 15 $\mu$ H							
L2004	24T63929F17	Choke, 15 $\mu$ H							
Relays									
RL2001	80T00048L02	RZ-12W-OH							
RL7001	80T00048L02	RZ-12W-OH							

Notes: ●: For West Germany model only (AD), ▲: For Canadian model only (UQ), Others: Common.

Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
C2008	08T81196F34	MIC., 100pF			C5007	23T00140L25	ELY., (B.P.) 33 $\mu$ F/25V		
C2009	08T81196F30	MIC., 68pF			C5008	23T00140L25	ELY., (B.P.) 33 $\mu$ F/25V		
C2010	08T81196F30	MIC., 68pF			C5021	23T00138L21	ELY., 100 $\mu$ F/16V		
C2011	08T00151L23	PP., 6800pF			C5022	23T00138L30	ELY., 47 $\mu$ F/25V		
C2012	08T00151L23	PP., 6800pF			C7003	08T00151L21	PP., 4700p		
C2013	08T81196F19	MIC., 33pF			C7004	08T00151L21	PP., 4700pF		
C2014	08T81196F19	MIC., 33pF			C7005	23T00132L52	ELY., 22 $\mu$ F/100V		
C2015	23T00132L12	ELY., 100 $\mu$ F/25V			C7006	23T00132L52	ELY., 22 $\mu$ F/100V		
C2016	23T00132L12	ELY., 100 $\mu$ F/25V			C7007	08T81196F19	MIC., 33pF		
C2017	23T00154L53	ELY., 22 $\mu$ F/100V			C7008	08T81196F19	MIC., 33pF		
C2018	23T00154L53	ELY., 22 $\mu$ F/100V			C7009	08T81196F19	MIC., 33pF		
C2019	23T00154L53	ELY., 22 $\mu$ F/100V			C7010	08T81196F19	MIC., 33pF		
C2020	23T00154L53	ELY., 22 $\mu$ F/100V			C7011	08T81196F04	MIC., 5pF		
C2021	08T81196F03	MIC., 3pF			C7012	08T81196F04	MIC., 5pF		
C2022	08T81196F03	MIC., 3pF			C7013	23T00154L53	ELY., 22 $\mu$ F/100V		
C2023	08T00151L16	PP., 1800pF			C7014	23T00154L53	ELY., 22 $\mu$ F/100V		
C2024	08T00151L16	PP., 1800pF			C7015	23T00154L53	ELY., 22 $\mu$ F/100V		
C2025	08T00151L72	PP., 6200pF			C7016	23T00154L53	ELY., 22 $\mu$ F/100V		
C2026	08T00151L72	PP., 6200pF			C7021	08T57705F05	MYL., 1000pF		
C2027	23T71210F12	ELY., (B.P.) 4.7 $\mu$ F/25V			C7022	08T57705F05	MYL., 1000pF		
C2028	23T71210F12	ELY., (B.P.) 4.7 $\mu$ F/25V			C7027	23T71210F18	ELY., (B.P.) 47 $\mu$ F/25V		
C2029	08T00151L23	PP., 6800pF			C7028	23T71210F18	ELY., (B.P.) 47 $\mu$ F/25V		
C2030	08T00151L23	PP., 6800pF			C7061	08T57705F13	MYL., 4700pF		
C2035	08T57705F05	MYL., 1000pF			C7062	08T57705F13	MYL., 4700pF		
C2036	08T57705F05	MYL., 1000pF			Resistors				
● C2041	08T52714F17	CER., 0.022 $\mu$ F			R7501	06T90737F01	M.O., 20 ohm 5W		
● C2042	08T52714F17	CER., 0.022 $\mu$ F			R7502	06T90737F01	M.O., 20 ohm 5W		
● C2101	08S40805F05	CER., 470pF							
● C2102	08S40805F05	CER., 470pF							
● C2103	08S40805F05	CER., 470pF							
● C2104	08S40805F05	CER., 470pF							
● C2105	08S40805F05	CER., 470pF							
● C2106	08S40805F05	CER., 470pF							
● C2107	08S40805F05	CER., 470pF							
● C2108	08S40805F05	CER., 470pF							
● C2109	08S40805F05	CER., 470pF							
● C2110	08S40805F05	CER., 470pF							
● C2111	08S40805F05	CER., 470pF							
● C2112	08S40805F05	CER., 470pF							
C2120	23T00138L30	ELY., 47 $\mu$ F/25V							
C5001	23T00136L47	ELY., 2200 $\mu$ F/25V							
C5002	23T00138L44	ELY., 0.47 $\mu$ F/50V							
C5003	23T00138L24	ELY., 470 $\mu$ F/16V							
C5005	23T00138L30	ELY., 47 $\mu$ F/25V							
C5006	23T00138L44	ELY., 0.47 $\mu$ F/50V							

Notes : ● : For West Germany model only (AD), ▲ : For Canadian model only (UQ), Others : Common..

Symbol No.	Part No.	Description		
Video Amp P. C. Board				
Transistors				
Q3001	48T81103F01	2SC1740		
Q3002	48T81103F01	2SC1740		
Q3003	48T81103F01	2SC1740		
Q3004	48T81103F01	2SC1740		
Q3005	48T81103F01	2SC1740		
Q3006	48T81103F01	2SC1740		
Q3007	48T81103F01	2SC1740		
Q3008	48S40832F03	2SC1318NC		
Diodes				
D3001	48S40477U01	IN4003		
ZD3001	48T52739F60	Zener, HZ9C-3		
Relay/Jack				
RL3001	80B42571P03	Relay, (G2E) 12V		
J3001	09T90671F01	Phono, Plate (AU) 4PV		
Capacitors				
C3001	23T00138L12	ELY., 100 $\mu$ F/10V		
C3002	23T00138L12	ELY., 100 $\mu$ F/10V		
C3003	08T55260F49	CER., 1000pF		
C3004	08T55260F49	CER., 1000pF		
C3005	23T00138L18	ELY., 22 $\mu$ F/16V		
C3006	23T00138L18	ELY., 22 $\mu$ F/16V		
C3007	23T00138L18	ELY., 22 $\mu$ F/16V		
C3008	23T00138L18	ELY., 22 $\mu$ F/16V		
C3009	23T00138L18	ELY., 22 $\mu$ F/16V		
C3010	23T00138L18	ELY., 22 $\mu$ F/16V		
C3011	08T81196F25	MIC., 47pF		
C3012	08T81196F25	MIC., 47pF		
C3013	23T00138L15	ELY., 470 $\mu$ F/10V		
C3014	23T00138L15	ELY., 470 $\mu$ F/10V		
C3015	23T00138L20	ELY., 47 $\mu$ F/16V		
C3016	23T00138L20	ELY., 47 $\mu$ F/16V		
C3021	23T00138L26	ELY., 4.7 $\mu$ F/25V		
C3022	23T00138L18	ELY., 22 $\mu$ F/16V		
C3023	23T00136L20	ELY., 1000 $\mu$ F/10V		
C3024	23T00140L17	ELY., (B.P.) 33 $\mu$ F/16V		
C3027	23T00138L18	ELY., 22 $\mu$ F/16V		
C3028	23T00138L18	ELY., 22 $\mu$ F/16V		

Symbol No.	Part No.	Description		
Tone Amp P. C. Board				
IC's				
IC4001	51T72167F01	M5220L		
IC4002	51T72167F01	M5220L		
Capacitors				
C4001	23T00154L17	ELY., 22 $\mu$ F/25V		
C4002	23T00154L17	ELY., 22 $\mu$ F/25V		
C4003	23T00154L17	ELY., 22 $\mu$ F/25V		
C4004	23T00154L17	ELY., 22 $\mu$ F/25V		
C4005	23T00138L27	ELY., 10 $\mu$ F/25V		
C4006	23T00138L27	ELY., 10 $\mu$ F/25V		
C4007	23T00138L27	ELY., 10 $\mu$ F/25V		
C4008	23T00138L27	ELY., 10 $\mu$ F/25V		
C4009	23T00138L27	ELY., 10 $\mu$ F/25V		
C4010	23T00138L27	ELY., 10 $\mu$ F/25V		
C4011	08T81196F34	MIC., 100pF		
C4012	08T81196F34	MIC., 100pF		
C4013	23T00138L27	ELY., 10 $\mu$ F/25V		
C4014	23T00138L27	ELY., 10 $\mu$ F/25V		
C4015	08T81196F14	MIC., 22pF		
C4016	08T81196F14	MIC., 22pF		
C4017	08T57851F01	PF, 0.01 $\mu$ F		
C4018	08T57851F01	PF, 0.01 $\mu$ F		
C4019	08T57851F12	TF., 0.082 $\mu$ F		
C4020	08T57851F12	TF., 0.082 $\mu$ F		
C4021	08T57851F32	PF, 4700pF		
C4022	08T57851F32	PF, 4700pF		
Volumes				
VR4001	18T90658F01	Rotary 250K ohm (BALANCE)		
VR4002	18T90657F01	Rotary 10K ohm B×2 (BASS)		
VR4003	18T90657F01	Rotary 10K ohm B×2 (TREBLE)		



Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
Tone Switch P. C. Board					LED P. C. Board				
Switch					LED's				
S4101	40T90666F01	Push (SPUN) (SUBSONIC, MONO, TONE IN)			LD8001	48T70949F01	SLR54DC3F (ORG)		
					LD8002	48T70949F01	SLR54DC3F (ORG)		
					LD8003	48T70949F01	SLR54DC3F (ORG)		
					LD8004	48T68847F01	SLR-54MC3 (GRN)		
					LD8005	48T68847F01	SLR-54MC3 (GRN)		
Capacitors					LD8006	48T68847F01	SLR-54MC3 (GRN)		
C4101	08T57851F21	TF., 0.47 $\mu$ F			LD8007	48T68847F01	SLR-54MC3 (GRN)		
C4102	08T57851F21	TF., 0.47 $\mu$ F			LD8008	48T68847F01	SLR-54MC3 (GRN)		
C4103	08T57851F22	TF., 0.56 $\mu$ F			LD8009	48T68847F01	SLR-54MC3 (GRN)		
C4104	08T57851F22	TF., 0.56 $\mu$ F			LD8010	48T68847F01	SLR-54MC3 (GRN)		
Loudness Switch P. C. Board					LD8011	48T68847F01	SLR-54MC3 (GRN)		
Switch/Capacitors					Miscellaneous				
S4201	40T90667F01	Switch, Push (SPUN) (LOUDNESS)			C1101	08T57437F11	CAP., CER., 0.01 $\mu$ F		
C4201	08T57705F04	MYL., 820pF			▲ C1102	08T57437F11	CAP., CER., 0.01 $\mu$ F		
C4202	08T57705F04	MYL., 820pF			● F1001	65T42077U14	Fuse, Semko T630mA		
C4203	08T57705F19	MYL., 0.015 $\mu$ F			● F1002	65T42077U14	Fuse, Semko T630mA		
C4204	08T57705F19	MYL., 0.015 $\mu$ F			● F1003	65T42077U14	Fuse, Semko T630mA		
Main Volume P. C. Board					● F1101	65T42077U10	Fuse, Semko T250mA		
Volume					▲ F1101	65T52486F03	Fuse, MF 61NM 1A		
VR4301	18T91013F01	Rotary 100K ohm B×2 (VOLUME CONTROL)			▲ J1001	09T67405F02	Outlet, AC		
Function Switch P. C. Board					J7101	09T66672F01	PHONES Jack (phones)		
Switch					LD8101	48T70949F01	LED, SLR54DC3F (ORG)		
S6001	40T90665F01	Push (SPUN) (VIDEO-1, -2, TUNER, CD, PHONO)			● P1001	28T43812P05	AC Power Cord		
Tape Monitor Switch P. C. Board					▲ P1001	28T66838F01	AC Power Cord		
Switch					● S1101	40T84122F01	Switch, Power SDDLE		
S6101	40T90668F01	Push (SPUF) (TAPE MONITOR, TAPE/DAT, STRAIGHT IN, STRAIGHT SELECTOR)			▲ S1101	40T80736F01	Switch, Power SDDZB1		
					● S1102	40T80258F02	Switch, Voltage Select		
					● T1001	25T92778F01	Trans, Power		
					▲ T1001	25T92779F01	Trans, Power		

Notes : ● : For West Germany model only (AD), ▲ : For Canadian model only (UQ), Others : Common.

## Cabinet Assembly Parts List

NOTE : The parts without part numbers are not supplied.

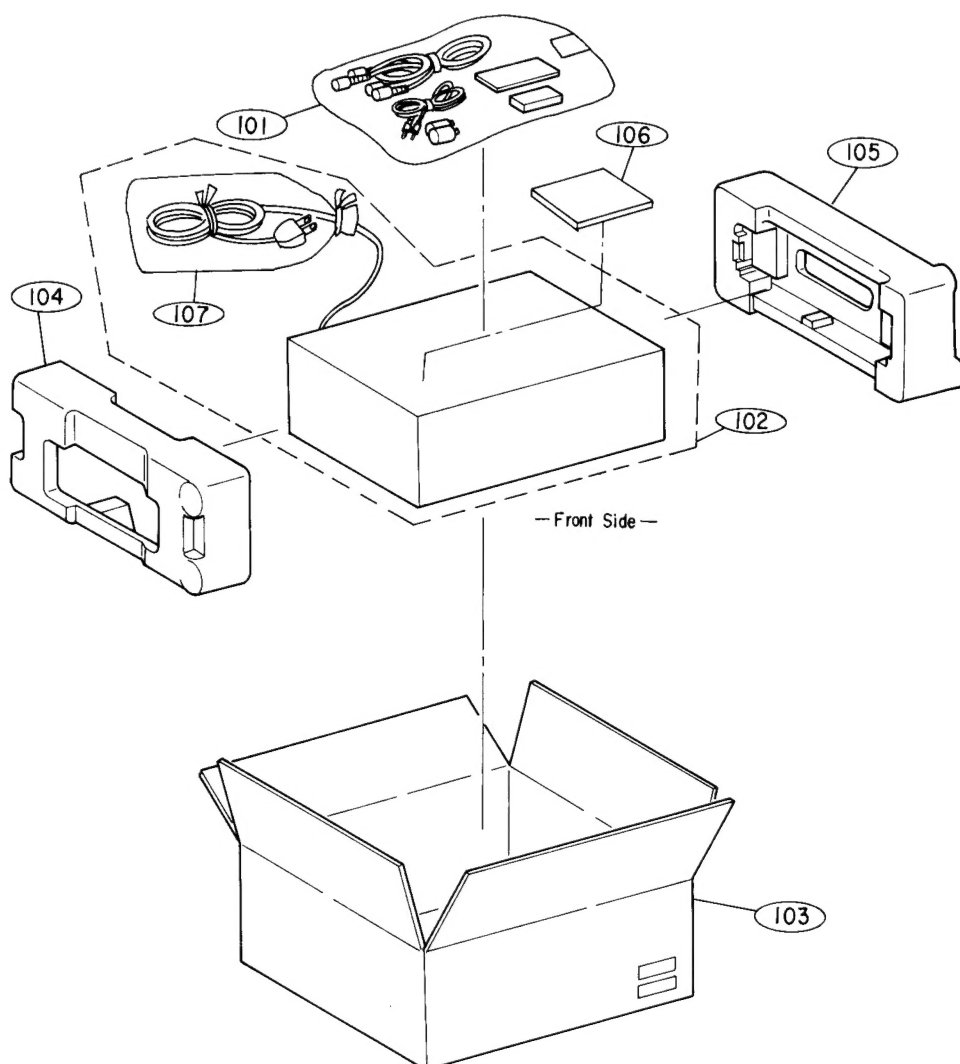
Symbol No.	Index	Part No.	Description			Symbol No.	Index	Part No.	Description		
	1	5-A	01V91300F98	Assy., Front P.C. Board			45	4-B	36A61760F01	Knob, Rotary (VR1163)	
●	2	2-G	15C83872F03	Cover, Top			46	3-A	36A61435F01	Knob, Volume (1164)	
▲	4	4-F	15C90578F01	Cover, Rear			47	4-C	36B90588F01	Knob, Rotary Volume	
	4	4-F	15C90578F02	Cover, Rear			48	3-A	36A57910F03	Knob, Rotary	
	5		03S71031F04	Screw, Bind (M3 × 8)			50		03S71031F01	Screw, Bind (M3 × 8)	
	6		03S82672F20	Screw, Bind (M3 × 8)			51	3-D	40T90660F01	Switch, Rotary	
	7	5-D	75T57059F01	Pad, Tranleg			52	3-D	40T90659F01	Switch, Rotary	
	8	6-D	03S63857F10	Screw, Tapping (M4 × 12)			53	2-A	40T90661F01	Switch, Rotary	
	10		03S44205G4Q	Screw, Bind (M3 × 4)							
	13		05B41635J02	Rivet Push							
●	14	2-D	14S53017F64	Insulator, Cover							
▲	14		54A63397F01	Label, Fuse Caution							
	15		03S44205G69	Screw, Bind (M4 × 6)							
	16	4-F	75S92415F11	Cushion, Rubber							
●	17	1-B	47A90587F01	Shaft, Power							
▲	17	1-B	47A92022F01	Shaft, Power							
	18	1-C	43A83885F01	Spacer, Rubber							
	21		03D40014G04	Screw, W/Washer (M3 × 6)							
	28		43T53136F01	Bush, Cap							
	29	4-H	43B41625J02	Support, Cord							
	30	4-H	29T66964F02	Terminal, GND (AU)							
●	31	5-H	14A93742F01	Double, Face Jack							
	35		09T51410F01	Holder, Fuse (Semko)							
▲	35	4-D	09T51960F01	Holder, Fuse (Semko)							
	36		29C41045P06	Lug, Board-In 50mm							
	37		29A41814G01	Lug							
	41	4-A	03S44205G50	Screw, Countersink (M3 × 6)							
	42	3-A	36B70885F08	Knob, Push (Power)							
	43		36A67333F02	Knob, Push (3 × 10)							
	44	4-A	36R61696F01	Knob, Main (1163 Metal)							

Notes : ● : For West Germany model only (AD), ▲ : For Canadian model only (UQ), Others : Common.

## Packing Assembly Parts List

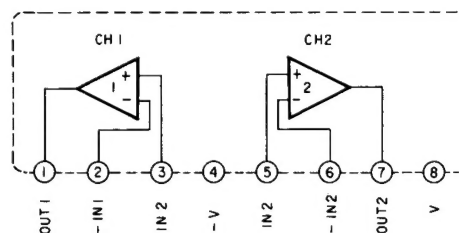
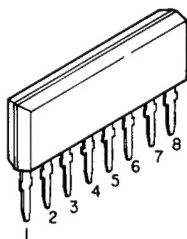
Symbol No.	Part No.	Description			Symbol No.	Part No.	Description		
101-1	68P83710F05	Owners Manual			105	56D90649F01	Tray, Packing		
101-2	28T67347F01	Plug, Audio Cable (AU)			106	56A93246F01	Pad, Packing		
102	56B40230G23	Sack, Polyethylene			107	56B40230G08	Sack, Polyethylene		
103	56S83833F14	Carton, Packing							
104	56D90648F01	Tray, Packing							

## Packing Method View

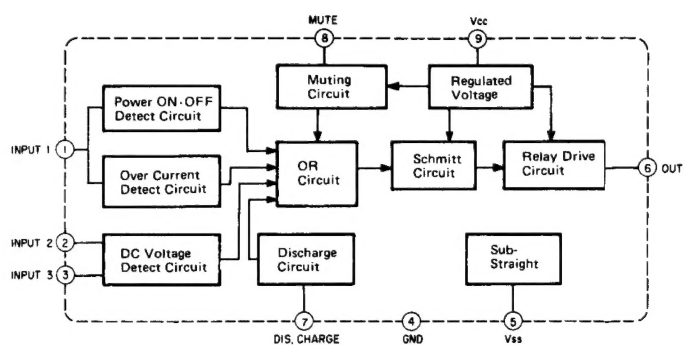
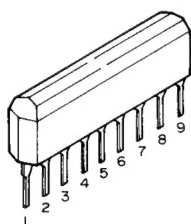


## Semi-Conductor Lead Identifications

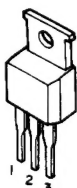
M5220L : IC2001, 2002, 4001, 4002



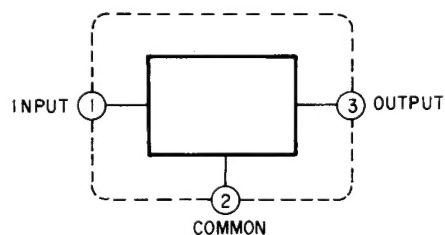
TA7317P : IC5001



NJM78M12A : IC5002



1: INPUT  
2: COMMON  
3: OUTPUT



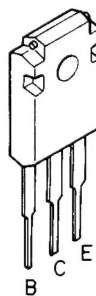
2SK30A : Q1001, 1002, 1015, 1016



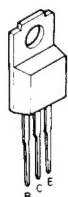
2SC1815 : Q1003, 1008, 1010, 1012, 1020, 1022, 1024, 2005, 2006, 5002, 5005  
 : Q5021, 5022, 5023, 7003, 7004, 7009, 7010, 7011, 7012, 7021, 7022  
 2SA1015 : Q1004, 1007, 1009, 1011, 1019, 1021, 1023, 5003, 5004  
 2SC1740 : Q3001, 3002, 3003, 3004, 3005, 3006, 3007  
 2SC1318NC : Q3008



2SC3298 : Q1005, 7017, 7018

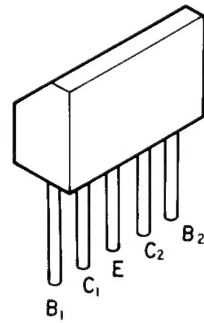


2SA1306 : Q1006, 7019, 7020



2SA798 : Q1014, 1026, 7007, 7008

2SC1583 : Q1013, 1025

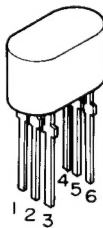


2SC3423 : Q1017

2SA1360 : Q1018

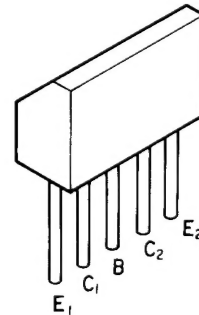


2SK240 : Q2001, 2002

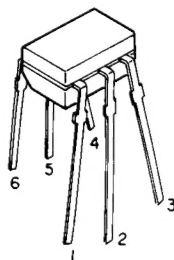


1: DRAIN 1  
2: GATE 1  
3: SOURCE 1  
4: DRAIN 2  
5: GATE 2  
6: SOURCE 2

2SC2291 : Q2003, 2004, 7005, 7006



2SK332 : Q7001, 7002



1: DRAIN 1  
2: GATE 1  
3: SOURCE 1  
4: SOURCE 2  
5: GATE 2  
6: DRAIN 2

2SA1208 : Q7015, 7016

2SC2910 : Q7013, 7014

